

202306UECM14040E2b

Start again

Review of preview

Started on	Wednesday, 19 July 2023, 08:00 PM
Completed on	Wednesday, 19 July 2023, 08:00 PM
Time taken	14 secs
Grade	0 out of a maximum of 10 (0%)

1

Marks: 1

Find the PV of an annuity with payments of 1500 at the beginning of every 3 years for 21 years at 6% effective per annum, in terms of interest functions at 6%. _____

Answer:

[Make comment or override grade](#)

Incorrect
Correct answer: 6601.58

Marks for this submission: 0/1.

2

Marks: 1

The proceeds of a 17,000 death benefit are left on deposit with an insurance company for seven years at an annual effective interest rate of 7%. The balance at the end of seven years is paid to the beneficiary in 120 equal monthly payments of X, with the first payment made immediately. During the payout period, interest is credited at an annual effective interest rate of 5%. Calculate X. _____

Answer:

[Make comment or override grade](#)

Incorrect
Correct answer: 286.892549

Marks for this submission: 0/1.

3

Marks: 1

Calculate the accumulated value of an annuity of 1/12 payable at the beginning of the month for 15.0 years at an annual effective interest rate of 13%. _____

Answer:

[Make comment or override grade](#)

Incorrect
Correct answer: 43.210399

Marks for this submission: 0/1.

4

Marks: 1

You are given $\delta_t = 4/(44+t)$ for $0 \leq t \leq 5$. Calculate $s_{\overline{5}|}$. _____

Answer:

[Make comment or override grade](#)

Incorrect

Correct answer: 5.960715

Marks for this submission: 0/1.

5

Marks: 1

Jenny receives 16-year increasing annuity-immediate paying 300 the first year and increasing by 300 each year thereafter. Matt receives a 16-year decreasing annuity-immediate paying Y the first year and decreasing by $Y/16$ each year thereafter. At an effective annual interest rate of 9%, both annuities have the same present value. Calculate Y . _____

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 3141.188876

Marks for this submission: 0/1.

6

Marks: 1

Two annuities have equal present values. The first is an annuity-immediate with quarterly payments of X for 12 years. The second is an increasing-annuity with 12 annual payments. The first payment is 500 and subsequent payments increase by 50.0 per year. You may assume an annual effective interest rate of 7%. Determine X . _____

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 179.145172

Marks for this submission: 0/1.

7

Marks: 1

An annuity-immediate pays 19 at the end of years 1 and 2, 18 at the ends of years 3 and 4, etc., with payments decreasing by 1 every second year, until nothing is paid. The effective annual rate of interest is 6%. Calculate the present value of this annuity-immediate. _____

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 196.553243

Marks for this submission: 0/1.

8

Marks: 1

Bob purchases an increasing perpetuity with payments occurring at the end of every 3 years. The first payment is 1, the second one is 2, the third one is 3, etc. The price of the perpetuity is 180. Calculate the annual effective interest rate. _____

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 0.025151

Marks for this submission: 0/1.

9

Marks: 1

An investor is considering the purchase of 100 ordinary shares in a company. Dividends from the share will be paid annually. The next dividend is due in one year and is expected to be RM0.05 per share. The second dividend is expected to be 10% greater than the first dividend and the third dividend is expected to be 6% greater than the second dividend. Thereafter, dividends are expected to grow at 5% per annum compound in perpetuity. Calculate the present value of this dividend stream at an annual effective rate of interest of 8%. _____

Answer:

X

[Make comment or override grade](#)

Incorrect

Correct answer: 175.954504

Marks for this submission: 0/1.

10

Marks: 1

You are given:

- The force of interest at time t is $1300t^3$.

- R is the present value of of a 7 year continuously increasing annuity which has a rate of payment of $900t^3$ at time t.

Calculate R. _____

Answer:



[Make comment or override grade](#)

Incorrect

Correct answer: 0.692308

Marks for this submission: 0/1.

 [Moodle Docs for this page](#)

You are logged in as [Yong Chin Khian](#) ([Logout](#))

UECM1404-202305-EZZ